PATENT
Serial No. 10/617,513
Docket No. 1026-011

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s)	:	Henry Wilmore Cox Jr.
Application #	:	10/617,513
Confirmation #	:	4000
Filed	:	11 July 2003
Application Title	:	METHOD FOR REDUCING H2S CONTAMINATION
Art Unit #	:	1754
Latest Examiner	:	Edward M. Johnson

INFORMATION DISCLOSURE STATEMENT (IDS)

Mail Stop Amendment
Commissioner for Patents
United States Patent and Trademark Office (USPTO)
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Pursuant to 37 CFR 1.56, the attention of the USPTO is hereby directed to the attached listing of documents and/or the attached Declaration. Unless otherwise indicated herein, one copy of each listed document is attached.

It is respectfully requested that the listed documents:

(1) be expressly considered during the prosecution of this application;

(2) be made of record therein; and

(3) appear among the "References Cited" on any patent to issue therefrom.

The following marked paragraphs are applicable in this IDS.

Timing of this IDS:

☒ **A.** This IDS is being filed per 37 CFR 1.97(b)

☐ (1): within 3 months of the U.S. filing date other than a CPA under 1.53(d);

☐ (2): within 3 months of the date of entry of the national stage as set forth in 1.491 in an international application;

☐ (3): before the mailing date of a first Office Action on the merits; **OR**

☒ (4): before the mailing date of a first Office Action associated with a request for continued examination (RCE) under 1.114;

AND, thus, no certification or fee is required.

☐ **B.** This IDS is being filed per 37 CFR 1.97(c), AFTER the period specified in 37 CFR 1.97(b) [section A of this IDS], and BEFORE:

(a) the mailing date of any Final Action under 1.113,

(b) a Notice of Allowance under 1.311, **OR**

(c) an action that otherwise closes prosecution,

AND, per 37 CFR 1.97(e), I hereby certify that:

☐ (1) each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application not more than 3 months prior to the filing of this IDS ; **OR**

☐ (2) no item of information in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application or, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 CFR 1.56(c) more than 3 months prior to the filing of this IDS;

AND, per 37 CFR 1.97(c), this IDS is accompanied by:

☐ (3) payment of the fee under 37 CFR 1.17(p) to ensure consideration of the disclosed information.

☐ C. This IDS is being filed per 37 CFR 1.97(d), AFTER the period specified in 37 CFR 1.97(c) [section B of this IDS], and ON or BEFORE the payment of the Issue Fee;

AND, per 37 CFR 1.97(e), I hereby certify that:

☐ (1) each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application not more than 3 months prior to the filing of this IDS; **OR**

☐ (2) no item of information in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application or, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 CFR 1.56(c) more than 3 months prior to the filing of this IDS;

AND, per 37 CFR 1.97(d), this IDS is accompanied by:

☐ (3) payment of the fee under 37 CFR 1.17(p) to ensure consideration of the disclosed information.

Legible Copies of Listed References:

☐ D. In addition to the attached listing, accompanying this IDS is a legible copy of each listed:

(1) U.S. patent document (i.e., application publication and patent), with the exception that copies of such U.S. patent documents are not included if this IDS is:
- (a) electronically submitted via EFS;
- (b) for an application filed after June 30, 2003; OR
- (c) for an application that entered the national stage under 35 U.S.C. 371 after June 30, 2003;

(2) foreign patent document;
(3) pending unpublished U.S. application OR that portion of the application that caused it to be listed including any claims directed to that portion; **AND**
(4) non-patent document or that portion thereof that caused it to be listed;
(5) other information or that portion that caused it to be listed.

☒ E. Consistent with 37 CFR 1.98(d), because the IDS submitted in parent U.S. Patent Application No. 10/361,274, to which this application claims priority per 35 U.S.C. 120, complies with 37 CFR 1.98(a) to (c), copies of the patent documents, non-patent documents, pending U.S. application, and other information submitted in that parent application do not accompany this IDS.

CONCLUSION

The Office is hereby authorized to charge any additional fees or credit any overpayments under 37 C.F.R. 1.16 or 1.17 to Deposit Account No. 50-2504. The Examiner is invited to contact the undersigned at 434-972-9988 to discuss any matter regarding this application.

Respectfully submitted,

Michael Haynes PLC

Michael N. Haynes

Date: 14 March 2005

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of 4

Complete If Known	
Application Number	10/617,513
Filing Date	11 July 2003
First Named Inventor	Henry Wilmore Cox, Jr.
Group Art Unit	1754
Examiner Name	Edward M. Johnson
Attorney Docket Number	1026-011

U.S. PATENT DOCUMENTS			
Examiner Initials	Patent No.	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document
	5,232,484	PIGNATELLO	3 August 1993
	5,286,141	VIGNERI	15 February 1994
	5,520,483	VIGNERI	28 May 1996
	5,741,427	WATTS	21 April 1998
	6,160,194	PIGNATELLO	12 December 2000
	6,319,328	GREENBERG	20 November 2001

NON PATENT LITERATURE DOCUMENTS	
Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
	"Introduction to Hydrogen Peroxide", printed from the web on 2 April 2003, 5 pages, published by US Peroxide of Laguna Niguel, CA and available on their web site at [www.h2o2.com/intro/overview.html]
	"Soil Treatment - In situ chemical oxidation of contaminated soils (using hydrogen peroxide)", printed from the web on 2 April 2003, 7 pages, published by US Peroxide of Laguna Niguel, CA, and available on their web site at [www.h2o2.com/applications/hazardouswaste/soil.html]
	"BOD and COD Reduction Using Hydrogen Peroxide", printed from the web on 2 April 2003, 5 pages, published by US Peroxide of Laguna Niguel, CA, and available at [www.h2o2.com/applications/ industrialwastewater/bodcod.html]
	"Chlorinated Solvents Treatment", printed from the web on 13 May 2002, 1 page, published by Hydroxyl Systems of Sidney, British Columbia, Canada, and available on their web site at [www.hydroxyl.com/ind_06.htm]

Examiner Signature		Date Considered	

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[1] Unique citation designation number. [2] Applicant is to place a check mark here if English language Translation is attached.

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	"Groundwater Treatment", printed from the web on 13 May 2002, 2 pages, published by Hydroxyl Systems of Sidney, British Columbia, Canada, and available on their web site at [www.hydroxyl.com/ind_04.htm]
	"Fenton's Reagent - Iron-Catalyzed Hydrogen Peroxide", printed from the web on 28 April 2003, 6 pages, published by US Peroxide, Laguna Niguel, CA, at [www.h2o2.com/applications/industrialwastewater/fentonsreagent.html]
	YUNFU SUN et al., "Chemical Treatment of Pesticide Wastes. Evaluation of Fe(III) Chelates for Catalytic Hydrogen Peroxide Oxidation of 2,4-D at Circumneutral pH", Journal of Agricultural and Food Chemistry, February 1992, pages 322 – 327, Volume 40, American Chemical Society.
	JOSEPH J. PIGNATELLO et al., "Ferric Complexes as Catalysts for "Fenton" Degradation of 2,4-D and Metolachlor in Soil", Journal of Environmental Quality, March-April 1994, pages 365 – 370, Volume 23, no. 2, Madison, WI.
	RICHARD J. WATTS et al., "Use of Iron Minerals in Optimizing the Peroxide Treatment of Contaminated Soils", Water Environment Research, November/December 1993, pages 839-844, Volume 65, number 7.
	RICHARD J. WATTS et al., "Hazardous Wastes Assessment, Management, and Minimization", Water Environment Research, , June 1994, pages 435-440, Volume 66, number 4.
	SOLOMON W. LEUNG et al., "Degredation of Perchloroethylene by Fenton's Reagent: Speciation and Pathway", Journal of Environmental Quality, July-September 1992, pages 377-381, Volume 21.
	SUSAN J. MASTEN, "Ozonation of VOC's in the Presence of Humic Acid and Soils", 1991, pages 287-312.
	DANIEL L. PARDIECK et al., "Hydrogen Peroxide Use to Increase Oxidant Capacity for in Situ Bioremediation of Contaminated Soils and Aquifers: A Review", Journal of Contaminant Hydrology, 1992, pages 221-242, number 9, Elsevier Science Publishers B.V., Amsterdam.
	BRYAN W. TYRE et al., "Waste Management", Journal of Environmental Quality, October-December 1991, pages 832-838, Volume 20.

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Sheet 3 of 4

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First Named Inventor	Henry Wilmore Cox, Jr.
Group Art Unit	1764
Examiner Name	Edward M. Johnson
Attorney Docket Number	1026-011

NON PATENT LITERATURE DOCUMENTS	
Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
	STEPHEN S. JOHNSON, "Round Up the Usual Suspects", Forbes Science and Technology, 22 January 1996.
	RICHARD S. GREENBERG et al., "In-Situ Fenton-Like Oxidation of Volatile Organics: Laboratory, Piolot, and Full-Scale Demonstrations", Remediation, March 1998, pages 29-42, John Wiley & Sons, Inc.
	AMY L. TEEL et al., "Comparison of Mineral and Soluble Iron Fenton's Catalysts for the Treatment of Trichloroethylene", Water Research, 2001, pages 977-984, Volume 35, No. 4, published by Elsevier Science Ltd., Great Britain.
	"Field Applications of In Situ Remediation Technologies: Chemical Oxidation", September 1998, EPA 542-R-98-008, U.S. Environmental Protection Agency, Washington, D.C., and available at [www.epa.gov/swertio1]
	"Inorganic Pollutant Dechlorination with Hydrogen Peroxide", printed from the web on 13 May 2002, 3 pages, published by US Peroxide of Laguna Niguel, CA, and available at [www.h2o2.com/applications/ industrialwastewater/dechlorination.html]
	"Inorganic Pollutant Sulfide Oxidation Using Hydrogen Peroxide", printed from the web on 13 May 2002, 3 pages, published by US Peroxide of Laguna Niguel, CA, and available at [www.h2o2.com/applications/ industrialwastewater/sulfideoxidation.html]
	"Inorganic Pollutant Nitrogen Oxides (nox) Abatement with Hydrogen Peroxide", printed from the web on 13 May 2002, 3 pages, published by US Peroxide of Laguna Niguel, CA, and available at [www.h2o2.com/applications/industrialwastewater/nox.html]
	"Inorganic Pollutant Arsenic Removal", printed from the web on 13 May 2002, 2 pages, published by US Peroxide of Laguna Niguel, CA, and available at [www.h2o2.com/applications/industrialwastewater/arsenic.html]
	"Organic Pollutant Formaldehyde Oxidation", printed from the web on 13 May 2002, 2 pages, published by US Peroxide of Laguna Niguel, CA, and available at [www.h2o2.com/applications/industrialwastewater/hcho.html]
	"Photographic Waste Treatment with Hydrogen Peroxide", printed from the web on 13 May 2002, 3 pages, published by US Peroxide of Laguna Niguel, CA, and available at [www.h2o2.com/applications/ industrialwastewater/photowaste.html]

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	"Ground Water Treatment Hydrogen Sulfide Removal", printed from the web on 13 May 2002, 2 pages, published by US Peroxide of Laguna Niguel, CA, and available at [www.h2o2.com/applications/ municipaldrinkingwater/h2sremoval.html]
	"Surface Water Treatment Residual Ozone Destruction", printed from the web on 13 May 2002, 1 page, published by US Peroxide of Laguna Niguel, CA, and available at [www.h2o2.com/applications/municipaldrinkingwater/ ozonedestruction.html]
	"Landfill Leachate Treatment Systems", printed from the web on 13 May 2002, 2 pages, published by Hydroxyl Systems of Sidney, British Columbia, Canada, and available on their web site at www.hydroxyl.com/ind07.htm]
	"Technical and Regulatory Guidance for In Situ Chemical Oxidation of Contaminated Soil and Groundwater", June 2001, Prepared by Interstate Technology and Regulatory Work Group in Situ Chemical Oxidation Work Team.

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